

REMARKS

Objections to the Specification

The specification stands objected to as failing to provide proper antecedent basis for the claimed subject matter. (8/13/03 Office Action, page 2, paragraph 1.)

Specifically, insertion into the specification was required for the claim limitations “up to about 50% diene monomer units” of claim 8, “about 1 to about 80% of polystyrene” of claim 9, “1 to 7 carbon atoms” of claims 10 and 13, “about 1 to about 15% impact modifier” of claim 14, and “about 20 seconds or less” of claim 24.

The specification has been amended in paragraphs [0015] and [0023]-[0026] to insert the above claim limitations. According, withdrawal of the objection is respectfully requested.

Other Amendments to the Specification

Applicants thank the Examiner for pointing out their error in listing U.S. Patent No. 4,254,775 on PTO Form 1449. Paragraph [0012] has been amended to correct a typographic error in the citation of U.S. Patent No. 4,154,775. The correct patent number is included on a new PTO Form 1449 submitted herewith.

Support for Claim Amendments

Claims 11 and 17 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as his invention. (8/13/03 Office Action, page 2, paragraph 2.) In particular, the claims were rejected as allegedly containing improper Markush language.

Claim 11 has been amended to conform to conventional Markush group language. Support for “vinyl aromatic monomer” may be found in paragraph [0023] of the specification as filed.

Claim 17 has been amended to conform to conventional Markush group language. The amendment is supported by Claim 17 as filed.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-26 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 6,165,309 to Burnell et al. (“Burnell”) in view of U.S. Patent No. 5,294,654 to Hellstern-Burnell et al. (“Hellstern-Burnell”). Applicants respectfully traverse this rejection.

Burnell generally describes a method for improving the adhesion between a conductive laminate and a substrate material. In one embodiment, the conductive laminate is a copper film and the substrate material comprises polyphenylene ether resin. The method involves admixing a copolymer of a vinyl aromatic compound and an alpha,beta-unsaturated cyclic anhydride with the polyphenylene ether resin. The copolymer of a vinyl aromatic compound and an alpha,beta-unsaturated cyclic anhydride is preferably a polystyrene maleic anhydride copolymer or a rubber modified polystyrene maleic anhydride copolymer. The composition may, optionally, comprise a non-fibrous filler (column 6, line 66 to column 7, line 31), an impact modifier (column 7, line 33-59), a non-elastomeric polymer of an alkenyl aromatic compound (column 7, line 60 to column 8, line 33) which may be, inter alia, a FINACLEAR resin, and one or more of various additives (column 8, lines 34-49). The only specific total compositions taught in Burnell are the working examples (column 9, line 9 to column 10, line 8). Those of ordinary skill in the art will recognize that article molded from all of the working examples would be opaque, based, at least, on their clay contents.

Hellstern-Burnell generally describes a composition comprising a polyphenylene ether, polystyrene, glass fibers, inorganic nonfibrous agents, carbon fibers or metal-coated graphite fibers, and certain disposphate- or polyphosphate-based flame retardants. Those of ordinary skill in the art would recognize that the required fillers would render opaque articles molded from the compositions of Hellstern-Burnell.

The Examiner's response to Applicants' arguments is reproduced below.

The rejections over the Burnell references are a different matter. Firstly the fillers, as stated in the paragraph overlapping columns 6 and 7 and in column 8, lines 34-49 of the Burnell ('309), are optional, so including carbon black, clay, ZnO and ZnS into the formulation is clearly erroneous. Secondly applicants did not use the FINACLEAR resins mentioned by the reference in column 8, line 25, which are used in the instant application. In a Declaration applicants have to use the formulation, which is the closest disclosed composition to applicants' composition, and said closest composition does not have to be one of the illustrative Examples. Hellster-Burnell et al. is cited only because they disclose applicants' claimed molecular weight. Burnell et al. show both transparent and opaque compounds in their disclosure, and selection of either, would have been obvious to one having ordinary skill in the art, at the time the invention was made.

(8/13/03 Office Action, pages 3-4, paragraph 8.) Applicants respectfully disagree with the Examiner's argument on three points. First, the Examiner's suggested method for selecting a comparative composition from the reference is not supported by law because it ignores the requirement for some teaching or suggestion supporting the obviousness rejection. Second, even if the Examiner's suggested method were supported by law, it is not possible to use the teachings of Burnell to prepare and test a disclosed composition containing a FINACLEAR resin, because Burnell does not identify even one specific FINACLEAR resin. Third, the Examiner's apparent use of Applicants' specification to provide detail absent from Burnell is clearly impermissible.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Establishing a *prima facie* case of obviousness requires that all elements of the invention be disclosed in the prior art. *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A 1970). All of Applicants' claims include, directly or via dependence, the limitation that "the blend has a percent transmittance after molding of at least about 35% measured at 1/8 inch thickness." The Examiner asserts that this limitation is inherently satisfied by the teachings of Burnell. Applicants respectfully disagree.

The Examiner's suggested method for selecting a comparative composition from the reference is not supported by law. Applicants do not dispute that a reference's teachings relevant to inherency are not generally limited to "illustrative Examples." However, the relevant teachings are limited to known compositions, particularly in the context of obviousness rejections based on inherency. *In re Rijckaert*, 28 U.S.P.Q.2d, 1955, 1957 (Fed. Cir. 1993). Furthermore, a reference's teachings relevant to inherency are limited to compositions that are taught or suggested by the reference. *Id.* As in any other rejection based on obviousness, an obviousness rejection based on inherency "can not be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention." *ATD Corp. v. Lydall, Inc.*, 48 USPQ2d 1321, 1329 (Fed. Cir. 10/6/98). Here, Burnell teaches compositions requiring a polyphenylene ether and a copolymer of a vinyl aromatic compound and an alpha,beta-unsaturated cyclic anhydride. Burnell teaches the optional use of various non-fibrous fillers, various impact modifiers, various non-elastomeric polymers of an alkenyl aromatic compound (including, *inter alia*, FINACLEAR resins), and various additives. There is no teaching or suggestion in Burnell to select components that form a transparent blend. To the contrary, Burnell is concerned with solving the problem of adhesion of a copper film to the thermoplastic substrate material, a use for which transparency is irrelevant. To the extent that Burnell teaches use of particular non-elastomeric polymers, HIPS is preferred (column 9, line 20). To the extent that Burnell suggests anything about the transmittance of objects molded from the total composition, it is that they are opaque (Examples, columns 9-10). It is therefore incorrect to assert that Burnell teaches or suggests any particular composition meeting Applicants' transmittance limitation.

Even if it were conceded – which it is not – that Burnell teaches a total composition consisting of a polyphenylene ether, a copolymer of a vinyl aromatic compound and an alpha,beta-unsaturated cyclic anhydride, and a FINACLEAR resin, is not possible to use the teachings of Burnell to prepare and test a specific, disclosed composition. "The mere fact that a certain thing may result from a given set of circumstances is not sufficient [to establish inherency]. That which may be inherent is not necessarily known. Obviousness cannot be predicated on what is unknown." *In re*

Rijckaert, 28 U.S.P.Q.2d, 1955, 1957 (Fed. Cir. 1993)(citations omitted). Although Burnell mentions “FINACLEAR resins” at column 8, line 25, no specific FINACLEAR resin are mentioned anywhere in the reference. It is therefore unknown what FINACLEAR resin would be used to prepare a specific composition representative of Burnell. And it is accordingly improper to base an obviousness rejection on the allegedly inherent properties of such a hypothetical composition. It is also important to note that even assuming, arguendo, that all FINACLEAR resins are clear, it does not necessarily follow that a composition comprising a polyphenylene ether, a copolymer of a vinyl aromatic compound and an alpha,beta-unsaturated cyclic anhydride, and a FINACLEAR resin would meet Applicants’ transmittance limitation.

The Examiner’s apparent use of Applicants’ specification to provide detail absent from Burnell is clearly impermissible. By noting that Burnell mentions FINACLEAR resins, and that Applicants use FINACLEAR resins in the instant application (8/13/03 Office Action, Pages 4-5, paragraph 8), the Examiner appears to suggest that Applicants should have used the teaching of a specific FINACLEAR resin in their own application as a basis for preparing and testing a comparative example allegedly representative of Burnell. Such a suggestion, if made, is clearly improper. “To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.” *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 220 U.S.P.Q. 303, 312-313 (Fed. Cir. 1983). It is thus impermissible to use Applicants’ specification to suggest the preparation of a composition containing FINACLEAR 520, or any other specific FINACLEAR resin.

Combining Burnell with Hellstern-Burnell does not remedy any of these deficiencies. The glass fibers, inorganic nonfibrous agents, and carbon fibers or metal-coated graphite fibers required by Hellstern-Burnell render her compositions opaque. Furthermore, Hellstern-Burnell does not teach or suggest a specific “rubber-modified poly(styrene) resin that is a tapered block copolymer”, and, even if she did, there would

be no motivation to pluck such a teaching from Hellstern-Burnell to combine it with Burnell in order to achieve a composition with high transmittance.

In summary, the Examiner has not met his burden of providing a specific basis in Burnell to support his allegation that Applicants' claimed transmittance necessarily flows from the teachings of Burnell. MPEP 2112. As such, a prima facie case of obviousness has not been established, and the rejection should be withdrawn. Accordingly, Applicants respectfully request the reconsideration and withdrawal of the rejection of Claims 1-26 under 35 U.S.C. § 103(a) over Burnell in view of Hellstern-Burnell.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0862 maintained by Assignee.

Respectfully submitted,

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